

SUBSTITUTE FORM PTO-1449
(MODIFIED)

DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
09010/006001

SERIAL NO.
08/651,568

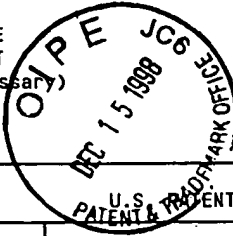
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

APPLICANT:
Jay Short

FILING DATE
5/22/96

GROUP
1652

(37 CFR 1.98(b))



U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | PATENT NUMBER | | | | | | | ISSUE DATE | PATENTEE | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|---------------|---|---|---|---|---|---|---------------|-----------------|-------|----------|-------------------------------|
| | AA | 5 | 8 | 3 | 7 | 4 | 5 | 8 | 11/17/98 | Minshull et al. | 435 | 6 | |
| we | AB | 5 | 8 | 3 | 0 | 7 | 2 | 1 | 11/3/98 | Stemmer et al. | 435 | 172.1 | |
| we | AC | 5 | 8 | 1 | 1 | 2 | 3 | 8 | 9/22/98 | Stemmer et al. | 435 | 6 | |
| we | AD | 5 | 6 | 0 | 5 | 7 | 9 | 3 | 2/25/97 | Stemmer | 435 | 6 | |
| | AE | | | | | | | | | | | | |
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FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

| | | DOCUMENT NUMBER | PUBLICATION DATE | COUNTRY OR PATENT OFFICE | CLASS | SUBCLASS | TRANSLATION | |
|----|----|-----------------|---------------------|-----------------------------|-------|----------|-------------|----|
| | | | | | | | YES | NO |
| we | AL | WO 91/16427 | 10/31/91 | PCT | ✓ | ✓ | | |
| | AM | | | | | | | |
| | AN | | | | | | | |
| | AO | | | | | | | |
| | AP | | | | | | | |

OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

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| | AQ | |
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EXAMINER Natheed DATE CONSIDERED 3/4/99

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Notice of References Cited

Application No.
08/651,568

Applicant(s)
Short, J.

Examiner
Nashaat T. Nashed

Group Art Unit
1814

Page 1 of 1

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| | DOCUMENT NO. | DATE | NAME | CLASS | SUBCLASS |
|---|--------------|---------|-------------|-------|----------|
| A | 5,500,363 | 3/19/96 | Comb et al. | 435 | 194 |
| B | | | | | |
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FOREIGN PATENT DOCUMENTS

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NON-PATENT DOCUMENTS

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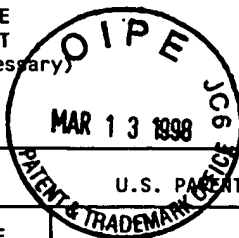
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09/375605



INFORMATION DISCLOSURE
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(Use several sheets if necessary)APPLICANT:
Jay M. ShortFILING DATE
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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | PATENT NUMBER | ISSUE DATE | PATENTEE | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|---------------|---------------|--|-------|----------|-------------------------------|
| AA | 5 5 0 0 3 6 3 | 3/19/96 | Comb, et al. <i>dupl. in Paper No. 8</i> | 435 | 194 | |
| AB | 5 3 5 2 7 7 8 | 10/4/94 | Comb, et al. | 536 | 23.2 | |
| AC | | | | | | |
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| | DOCUMENT NUMBER | PUBLICATION DATE | COUNTRY OR PATENT OFFICE | CLASS | SUBCLASS | TRANSLATION | |
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OTHER DOCUMENTS (including Author, Title, Date, Place of Publication)

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EXAMINER

DATE CONSIDERED

10/26/98

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Notice of References Cited

Application No.
08/651,568

Applicant(s)

Short

Examiner

Kawai Lau

Group Art Unit

1652

Page 1 of 1

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| | DOCUMENT NO. | DATE | NAME | CLASS | SUBCLASS |
|---|--------------|------|---------------|-------|----------|
| A | 5,316,935 | 5/94 | Arnold et al. | 435 | 222 |
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NON-PATENT DOCUMENTS

| | DOCUMENT (Including Author, Title, Source, and Pertinent Pages) | DATE |
|---|---|-------|
| u | Zhou, Y. et al. (1991) "Random mutagenesis of gene-sized DNA molecules by use of PCR with Taq DNA polymerase" Nucleic Acids Research, Vol. 19, no. 21, pg. 6052. | 11/91 |
| v | Kirshtein, J.D. et al. (1991) "Amplification, cloning, and sequencing of a nifH segment from aquatic microorganisms and natural communities" Applied and Environmental Microbiology, Vol. 57, no. 9, pp. 2645-2650. | 9/91 |
| w | Ueda, T. et al. (1995) "Remarkable N2-fixing bacterial diversity detected in rice roots by molecular evolution analysis of nifH gene sequences" Journal of Bacteriology, Vol. 177, No. 5, pp. 1414-1417. | 3/95 |
| x | Hennecke, H. et al. (1985) "Concurrent evolution of nitrogenase genes and 16S rRNA in Rhizobium species and other nitrogen fixing bacteria" Archives of Microbiology, Vol. 142, pp. 342-348. | 1985 |

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|---------------------|----|---------------|---|---|---|---|---|---|---------------|--------------|-------|----------|-------------------------------|
| NE | AA | 5 | 5 | 0 | 0 | 3 | 6 | 3 | 3/19/96 | Comb, et al. | 435 | 194 | |
| NE | AB | 5 | 3 | 5 | 2 | 7 | 7 | 8 | 10/4/94 | Comb, et al. | 536 | 23.2 | |
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| | DOCUMENT (Including Author, Title, Source, and Pertinent Pages) | DATE |
|---|---|------|
| U | Osuna et al. "Combinatorial mutagenesis of three major groove-contacting residues of EcoRI: Gene 106, 7-12. | 1991 |
| V | Dube et al. Artificial mutant generated by the insertion of random oligonucleotides into the putative" Biochemistry 30, 11760-11767. | 1991 |
| W | | |
| X | | |